SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: Glenn Albrecht, Sydney Brenner, David H. Lloyd

(ii) TITLE OF INVENTION: Massively Parallel Signature
Sequencing by Ligation of Encoded Adaptors

(iii) NUMBER OF SEQUENCES: 28

(iv) CORRESPONDENCE ADDRESS:
        (A) ADDRESSEE: Stephen C. Macevicz, Lynx Therapeutics,
Inc.
        (B) STREET: 3832 Bay Center Place
        (C) CITY: Hayward
        (D) STATE: California
        (E) COUNTRY: USA
        (F) ZIP: 94545

(v) COMPUTER READABLE FORM:
        (A) MEDIUM TYPE: 3.5 inch diskette
        (B) COMPUTER: IBM compatible
        (C) OPERATING SYSTEM: Windows 3.1/DOS 5.0
        (D) SOFTWARE: Microsoft Word for Windows, vers. 2.0

(vi) CURRENT APPLICATION DATA:
        (A) APPLICATION NUMBER:
        (B) FILING DATE:
        (C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:
        (A) APPLICATION NUMBER: 08/689,587
        (B) FILING DATE: 12-AUG-96

(vii) PRIOR APPLICATION DATA:
        (A) APPLICATION NUMBER: 08/659,453
        (B) FILING DATE: 06-JUN-96

(viii) ATTORNEY/AGENT INFORMATION:
        (A) NAME: Stephen C. Macevicz
        (B) REGISTRATION NUMBER: 30,285
        (C) REFERENCE/DOCKET NUMBER: 808-1us

(ix) TELECOMMUNICATION INFORMATION:
        (A) TELEPHONE: (510) 670-9365
        (B) TELEFAX: (510)670-9302

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 28 nucleotides
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: double
        (D) TOPOLOGY: linear

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: Glenn Albrecht, Sydney Brenner, David H. Lloyd, Stephen C. Macevicz

(ii) TITLE OF INVENTION: Massively Parallel Signature Sequencing by Ligation of Encoded Adaptors

(iii) NUMBER OF SEQUENCES: 6

(iv) CORRESPONDENCE ADDRESS:
     (A) ADDRESSEE: Stephen C. Macevicz, Lynx Therapeutics, Inc.
     (B) STREET: 3832 Bay Center Place
     (C) CITY: Hayward
     (D) STATE: California
     (E) COUNTRY: USA
     (F) ZIP: 94545

(v) COMPUTER READABLE FORM:
     (A) MEDIUM TYPE: 3.5 inch diskette
     (B) COMPUTER: IBM compatible
     (C) OPERATING SYSTEM: Windows 3.1/DOS 5.0
     (D) SOFTWARE: Microsoft Word for Windows, vers. 2.0

(vi) CURRENT APPLICATION DATA:
     (A) APPLICATION NUMBER:
     (B) FILING DATE:
     (C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:
     (A) APPLICATION NUMBER: 08/689,587
     (B) FILING DATE: 12-AUG-96

(vii) PRIOR APPLICATION DATA:
     (A) APPLICATION NUMBER: 08/659,453
     (B) FILING DATE: 06-JUN-96

(viii) ATTORNEY/AGENT INFORMATION:
     (A) NAME: Stephen C. Macevicz
     (B) REGISTRATION NUMBER: 30,285
     (C) REFERENCE/DOCKET NUMBER: 808-1us

(ix) TELECOMMUNICATION INFORMATION:
     (A) TELEPHONE: (510) 670-9365
     (B) TELEFAX: (510)670-9302

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 28 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: double
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

TGGATTCTAG AGAGAGAGAG AGAGAGAG   28

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 16 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: double
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

NNGGATGNNN NNNNNN   16

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 11 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

NRRGATCYNN N   11

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 20 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: double
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

AGTGGCTGGG CATCGGACCG   20

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 20 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: double
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GGGGCCCAGT CAGCGTCGAT   20

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 70 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

AAAAGGAGGA GGCCTTGATA GAGAGGACCT GTTTAAACGT TTAAACGGAT   50
CCTCTTCCTC TTCCTCTTCC   70

(2) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 34 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

CTAAACCATT GGTATGGGCC AGTGAATTGT AATA   34

(2) INFORMATION FOR SEQ ID NO: 8:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 55 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

CGCGCAGCCC GCATCGTTTA TGCTACAGAC TGTCAGTGCA   40
GCTCTCCGAT CCAAA   55

(2) INFORMATION FOR SEQ ID NO: 9:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 16 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

TCGATGGGCT AGATTT   16

(2) INFORMATION FOR SEQ ID NO: 10:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

ANNNTACAGC TGCATCCCTT GGCGCTGAGG   30

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

NANNTACAGC TGCATCCCTG GGCCTGTAAG   30

(2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

CNNNTACAGC TGCATCCCTT GACGGGTCTC   30

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

NCNNTACAGC TGCATCCCTG CCCGCACAGT   30

(2) INFORMATION FOR SEQ ID NO: 14:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

GNNNTACAGC TGCATCCCTT CGCCTCGGAC   30

(2) INFORMATION FOR SEQ ID NO: 15:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

NGNNTACAGC TGCATCCCTG ATCCGCTAGC   30

(2) INFORMATION FOR SEQ ID NO: 16:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

TNNNTACAGC TGCATCCCTT CCGAACCCGC   30

(2) INFORMATION FOR SEQ ID NO: 17:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

NTNNTACAGC TGCATCCCTG AGGGGGATAG   30

(2) INFORMATION FOR SEQ ID NO: 18:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

NNANTACAGC TGCATCCCTT CCCGCTACAC   30

(2) INFORMATION FOR SEQ ID NO: 19:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

NNNATACAGC TGCATCCCTG ACTCCCCGAG   30

(2) INFORMATION FOR SEQ ID NO: 20:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

NNCNTACAGC TGCATCCCTG TGTTGCGCGG   30

(2) INFORMATION FOR SEQ ID NO: 21:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

NNNCTACAGC TGCATCCCTC TACAGCAGCG   30

(2) INFORMATION FOR SEQ ID NO: 22:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

NNGNTACAGC TGCATCCCTG TCGCGTCGTT   30

(2) INFORMATION FOR SEQ ID NO: 23:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

NNNGTACAGC TGCATCCCTC GGAGCAACCT   30

(2) INFORMATION FOR SEQ ID NO: 24:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

NNTNTACAGC TGCATCCCTG GTGACCGTAG   30

(2) INFORMATION FOR SEQ ID NO: 25:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 30 nucleotides
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

NNNTTACAGC TGCATCCCTC CCCTGTCGGA   30

(2) INFORMATION FOR SEQ ID NO: 26:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 78 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

ACTAATCGTC TCACTATTTA ATTAANNNNN NNNNNNNNNN   40

NNNNNNNNNN NNNNNNNGGT TTTTTTTTTT TTTTTTTV   78

(2) INFORMATION FOR SEQ ID NO: 27:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 17 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: double
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

ATAGGGGTCT TCGGTAC   17

(2) INFORMATION FOR SEQ ID NO: 28:

(i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 19 nucleotides
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: double
     (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

GATCAGCTGC TGCAAATTT   19